Translation

PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

| | | |
|---|---|---|
| Applicant's or agent's file reference<br>2002P06854WO | **FOR FURTHER ACTION** | See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |
| International application No.<br>PCT/DE2003/001820 | International filing date (*day/month/year*)<br>02 June 2003 (02.06.2003) | Priority date (*day/month/year*)<br>05 June 2002 (05.06.2002) |
| International Patent Classification (IPC) or national classification and IPC<br>H04L 12/18 | | |
| Applicant<br>SIEMENS AKTIENGESELLSCHAFT | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 4 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

| | |
|---|---|
| Date of submission of the demand<br>24 September 2003 (24.09.2003) | Date of completion of this report<br>14 September 2004 (14.09.2004) |
| Name and mailing address of the IPEA/EP<br><br>Facsimile No. | Authorized officer<br><br>Telephone No. |

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/DE2003/001820

## I. Basis of the report

1. With regard to the **elements** of the international application:*

☐ the international application as originally filed

☒ the description:
pages 1-3, 5-12, as originally filed
pages _____, filed with the demand
pages 4, filed with the letter of 11 December 2003 (11.12.2003)

☒ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages 1-12, filed with the letter of 11 December 2003 (11.12.2003)

☒ the drawings:
pages 1/2-2/2, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* *Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).*

** *Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

| | | | |
|---|---|---|---|
| Novelty (N) | Claims | 1-11 | YES |
| | Claims | 12 | NO |
| Inventive step (IS) | Claims | 1-11 | YES |
| | Claims | 12 | NO |
| Industrial applicability (IA) | Claims | 1-12 | YES |
| | Claims | | NO |

2. Citations and explanations

**1. Prior Art**

The present invention relates to a method for transmitting data packets and to a corresponding device. Transmission methods are known from the prior art in which confirmation messages are transmitted from the receiver to the sender, said messages optionally containing information about data packets not received or received erroneously. Such packets are then optionally retransmitted. Billing or not billing for individual data packets, depending on the confirmation messages from the receiver or intermediate routers, is also known from the prior art (see e.g. WO-A-0079494).

**2. Problem**

According to the prior art, there is no complete solution for the problem of billing for data packets that were not received or were received erroneously, particularly in cases in which an excessively high number of data packets are reported as erroneous, which could indicate deliberate manipulation of the receiver terminal.

**3. Solution**

The present invention solves the above problem by a method wherein the data packets are transmitted and, if positive confirmation is received, billed and wherein any messages

indicating an erroneous receipt are sent by a receiver. Furthermore, according to the claimed method the sender defines a threshold value for such non-receipt messages and when said threshold is exceeded a status request is sent to the receiver.

This solution has the advantage that the number of messages sent to a receiver and not billed is limited. In this way, the possibility of a receiver manipulating the terminal device to send fraudulent non-receipt messages in order to receive data packets free of charge is limited.

**4. Conclusions**

The present solution is neither anticipated nor suggested by the available prior art. For this reason, the subject matter of independent **claims 1 and 7** is novel and inventive within the meaning of PCT Article 33(2) and (3). **Claims 2 to 6 and 8 to 11** are dependent upon claims 1 and 7 and are thus likewise novel and inventive.

**5. Defects**

It is unclear, however, what features a terminal device according to independent **claim 12** should have (PCT Article 6). Insofar as the present device is a receiver, no features going beyond the aforementioned prior art are necessary, since a receiver merely transmits positive and negative receipt confirmations. A device of this type is thus known (PCT Article 33(2); see e.g. WO-A-0079494).

Contrary to PCT Rule 5.1(a)(ii), the description does not cite document WO-A-0079494 or indicate the relevant prior art disclosed therein.

acknowledgment via a confirmation message or verifies whether a confirmation message returns to the sender within a predefined time interval.

In a preferred embodiment of the present invention no more data packets are sent from the sender to the recipient if no confirmation message reaches the recipient within a time frame started by the timer. In such a case it can be assumed that the data packets have either not reached the recipient or the recipient is in principle not sending confirmation messages back to the sender.

In a development of the present invention data packets are not charged for, if no confirmation message reaches the recipient within a time frame started by the timer. Users of the recipient, receiving data packets from the sender, only want to pay a charge for the receipt of data packets, if the data packet has not only been sent by the sender but they have also actually received it. It is possible for a sender to have sent a data packet but for this not to have reached the recipient for example due to radio holes. In such a case it is obvious that the user of the recipient will not want to pay charges for the unused data packet. In such a case therefore charging does not take place.

In a development of the present invention a status request is sent from the sender to the recipient, if no confirmation message reaches the recipient within a time frame started by the timer. Such a status request can be used to verify the status of the recipient. If for example the recipient is no longer able to send confirmation messages to the sender, this can be determined by means of the status request. It is also possible for the user